Remarks

Claims 1 through 6 and 9 through 18 are now pending

Claim 1 has been amended in response to the Examiner's observations under 35 U.S.C. Section 112, second paragraph.

The Rejection

The following patent publications have been relied upon to reject the Applicants claims:

U.S. Patents

6,046,266	Sandstrom et al (Sandstrom)
5,929,157	Matsuo
5,284,898	Thise
4,703,079	Ahmad
4152186	Shibata (newly cited)

Other

WO 99/52720	Brown, et al (Brown)

Rejection

The Applicants' claims 1 through 6 and 9 through 18 have been rejected under 35 U.S.C. Section 103(a) over Brown in view of Thise, Matsuo and Shibata, Ahmad and/or Sandstrom. The rejection is traversed with a request for reconsideration.

A reconsideration of the rejection is requested in view of comments herein.

It is believed that the Examiner's objections to the claims and rejection under 35 U.S.C. Section 112, second paragraph, has been remedied by amendments made to the claims.

The Invention

It is important to appreciate that the invention of the Applicants' claims is based on a cooperative combination of tire tread and sidewall structure (lug and groove configuration) and significantly differentiated rubber compositions, namely that the lug and groove configured tread is of one rubber composition and the lug and groove configured portion of the sidewall is of another significantly different rubber composition.

Accordingly, the rubber composition of the lug and groove configured portion of the tread intended to be ground-contacting is in a sense de-coupled from the rubber composition of the lug and groove configured portion of the sidewall.

In particular, the rubber composition of the lug and groove configured portion of the tread intended to be ground-contacting is required to be reinforced with carbon black of a required Iodine and DBP value characterization and is exclusive of a combination of silica reinforcement and coupling agent.

In particular, the rubber composition of the lug and groove configured portion of the sidewall (which is structurally an extension of the lug and groove configuration of the tread) is required to be reinforced with precipitated silica in combination with a coupling agent for the silica with only a minor amount of carbon black reinforcement for which the carbon black itself has Iodine and DBP values distinguished from and different than such values required for the carbon black reinforcement for the tread.

Indeed, it is contended that such combination of tread lug and groove configuration with the de-coupled (significantly differentiated) rubber composition of the sidewall lug and groove configuration is a significant departure form both past practice and the cited references.

Discussion

The cited Brown reference is directed to a tire tread, of lug and groove configuration. Simplistically presented, nowhere is it seen that Brown teaches or suggests that the portion of the lug and groove configured tread (40) that extends over the tire sidewall has the rubber composition of the tire sidewall instead of the lug and groove configured tread. Only the Applicants' claimed invention provides such significant innovation, particularly where the Applicants' require that the sidewall is substantially silica reinforced and the tread is carbon black reinforced to the exclusion of silica reinforcement.

In particular, in view of the requirement of the Applicants' claims that the lug and groove configured portion of the tread that extends as a significant part of the sidewall is of the silica-reinforced sidewall composition and not of the tread composition which is carbon black reinforced to the exclusion of silica reinforcement, it is contended the Applicants' claims are novel in view of Brown and that Brown, by itself, is materially deficient for a purpose of rejecting the Applicants' claims as being obvious under 35 U.S.C. Section 103(a).

This contention is made whether or not it might be obvious to one of ordinary skill in the pertinent art to use a tire tread which is silica reinforced or is carbon black reinforced to the exclusion of silica reinforcement. The art contains many teachings of such treads. Here, the invention is directed to a structural combination of a silica reinforced tire sidewall, a carbon black reinforced tread of lug and groove configuration which extends as a significant part of the tire sidewall but, however, the extended part of the tread over the sidewall is required to be silica reinforced. Brown does not teach or suggest such distinction. It is the Applicants' who have made this distinction and invention.

The Sandstrom reference does not remedy the significant and material deficiency of Brown. In particular, Sandstrom teaches the tire sidewall silica reinforced rubber composition and relates that it can be used for the tread as well. However, the Applicants' structural requirement of a tread of lug and groove configuration which extends as a part of the sidewall in a manner that the tread is carbon black reinforced to the exclusion of silica reinforcement and both the sidewall and the portion of the tread extending as a significant part of the sidewall are silica reinforced is believed to a be a significantly novel in view of and patentably distinct from the Sandstrom reference.

Again, this contention is made whether or not it might be obvious to one of ordinary skill in the pertinent art to use a tire tread which is silica reinforced or is carbon black reinforced to the exclusion of silica reinforcement since it is not seen herein that the art teaches

the Applicants' required tire tread/sidewall construction with the silica/carbon black reinforcement restrictions.

Whether Matsuo uses silica reinforcement, with coupler, for a tire sidewall is contended to stand for just that. Not for teaching a lug and groove configured sidewall which is reinforced with silica together with a tire tread which itself is carbon black reinforced to the exclusion of silica. To reach out and pull in Matsuo with a purpose of showing that the Applicants' required combination of tread/sidewall structure taken together with the silica/carbon black restrictive reinforcement is obvious in view of the remainder of cited references is contended to be an inappropriate extension of Matsuo. Indeed, it is only the Applicants' who have made this innovation in the face of a rather crowded tire tread and sidewall art.

Apparently, Thise, Matsuo and Ahmad are cited to show a desirability of reinforcing a tread with carbon black to the exclusion of silica. Whether Thise, Matsuo and Ahmad use carbon black for a tire tread is contended to stand for just that. Not for teaching a lug and groove configured sidewall which is reinforced with silica together with a tire tread which itself is carbon black reinforced to the exclusion of silica. To reach out and pull in Thise, Matsuo and Ahmad for a purpose of showing that the Applicants' required combination of tread/sidewall structure taken together with the silica/carbon black restrictive reinforcement is obvious in view of the remainder of cited references is contended to be an inappropriate extension of these three references. Indeed, it is only the Applicants' who have made this innovation in the face of a rather crowded tire tread and sidewall art.

In essence, the Applicants' claimed invention requires a compositional de-coupling of the lug and groove configured tire tread intended to be ground-contacting from the lug and groove configured tire sidewall which is not seen as being taught or suggested by any individual or combination of the cited references. In effect, it is contended that the individual and combination of cited references actually lead away from the de-coupling of the rubber

compositions for the lug and groove portions of the tread and of the sidewall requirement of the Applicants' claims.

Indeed, it is an essence of the Applicants' claimed invention of the use of significantly different rubber compositions for the lug and groove configured tire tread and for the lug and groove configured tire sidewall and that such compositional de-coupled rubber construction combination is a significant departure from past practice.

Therefore, it is contended that a combination of the Brown, Sandstrom, Thise, Matsuo, Shibata and/or Ahmad references does not make out a prima facie case of obviousness of the Applicants' claims under the requirements of 35 U.S.C. Section 103(a).

It is contended that is not correct for the Examiner to simply pick and choose among isolated disclosures in the cited references and piece them together by a hindsight reconstruction. (See In re Fritch, 972 F.2d 1260; 23 U.S.P.Q. 2d 1780.)

Conclusion

It is contended that the Applicant's claims, particularly claim 1, which are directed to a tire having a combination of significantly cooperative structural and compositional restrictions, are novel and are patentably distinct from the combinations of cited references.

Respectfully submitted,

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